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Reference Number: 96AM-36

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NOTICE OF REASON(S) FOR REJECTION

Patent Application No.: 8-147597

Drafting Date: December 2, 2004

Examiner of JPO: YOKOMIZO Akinori

9423 3C00

Representative: HASEGAWA Yoshiki, et al.

Applied Provision(s): Section 29*bis* and Section 36

This application should be rejected for the reason(s) stated below. If the applicant has any argument against the reason(s), such argument should be submitted within 3 months from the date on which this notice was dispatched.

Reason(s)

Reason 1

The invention(s) in claim(s) listed below of the present application should not be granted a patent under the provision of Patent Law Section 29*bis* since it is identical with an invention (device) described in the specification or drawings originally attached to the request of the application for patent (utility model) registration listed below, which is an application for patent (utility model) which was filed prior to the filing date of the present application and was laid-open (publication of a gazette containing the patent or publication of a gazette containing the utility model) after the filing of the present application, the inventor of the present application is not identical with the inventor who has made said invention (device), and the applicant of the present application is also not identical of said application for patent (utility model) registration at the time of filing of the present application.

Note (see List of Cited References, etc.)

Claims 1-4 and 6-10

Cited reference A

Remarks:

The application A discloses a polishing head assembly, comprising a load member including a housing support plate, wafer backing member and chamber and a retaining ring assembly controlled separately and arranged retractably by the pressure and including a tube.

The application A discloses the use of a diaphragm in place of a bellows, and the use of wafer bonding in place of wafer vacuuming. However, the bellows and diaphragm as chamber component members and bonding and vacuuming as wafer holding are well-known arts in the field of polishing head assemblies (refer to Japanese Published Unexamined Patent Application 64-045566, etc., if necessary). A bladder and tube are very generally used as fluid-pressure operating parts. And a recess arranged in the wafer vacuuming part and an edge seal applied thereto are also well-known arts (refer to Japanese Published Unexamined Patent Application 63-144954, if necessary). Thus, it is a matter of design variation that can be changed on an as needed basis to determine which one of the above means is adopted in the respective cases.

Reason 2

This application does not comply with the requirements under Patent Law Section 36(6)(ii) with regard to the description of claim(s) on the points mentioned below.

Note

Claim 8

Remarks:

Regarding the recitation "pocket", its concrete structure is unclear.

(In view of no other recitation "pocket" in claims, the recitation of claim 7 to which claim 8 refers, etc., it is assumed that "pocket" is an error in writing of "recess".)

Therefore, the invention in claim 8 is indefinite

List of Cited References, etc.

- A. Japanese Patent Application 07-041076 (Japanese Published Unexamined Patent Application 08-229808)
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<Precautions>

(1) When amending the specification, the points modified by the amendment should be underlined (Patent Law Regulations Form No. 13 Remarks 6).

(2) The amendment should be made within the range of the matters described in the specification or drawings as originally filled as well as the matters which are obvious to a person skilled in the art from the specification or drawings as originally filed. It is suggested to insist in the written argument the reasons that the amendment to each matter is in conformity with the law by clearly showing the description in the specification as originally filled, which forms a basis of such amendment. (Regarding the description form of the written argument, please refer to the description form of a demand for correction in the appeal for invalidation.)

(3) For claim(s) other than claim(s) specified in the notice of reason(s) for rejection, no reason(s) for rejection has been found so far. If any reason(s) for rejection is found later, it will be noticed.

Record of Results of Prior Art Search

Technical Field(s) to be Searched: Int. Cl(7) B24B37/00

B24B37/04

H01L21/304

This record is not a component(s) of the reason(s) for rejection.

Any inquiry concerning the contents of this notice of reason(s) for rejection or intention of holding an interview should be directed to:

Patent Examination Part II, Production Machinery

Telephone number: 03-3581-1101, Extension 3324

Cited reference A: JP-A 08-229808

Brief Description of the Drawings

Fig. 1 is a front view showing a first embodiment of a wafer polishing machine according to the present invention,

Fig. 2 is a front view showing a state of arrangement of a wafer holding head and a platen of the machine,

Fig. 3 is a sectional view showing the wafer holding head of the machine in the first embodiment,

Fig. 4 is an enlarged view of the main part of Fig. 3,

Fig. 5 is a sectional view showing the wafer holding head used in a second embodiment of the present invention,

Fig. 6 is a sectional view showing a wafer holding head of a conventional wafer polishing machine, and

Fig. 7 is a schematic view showing a problem of the conventional machine.

Description of the Reference Numerals

- 22: platen
- 24: polishing pad
- 30: carrousel (head drive mechanism)
- 32: wafer holding head
- 34: head main body
- 44: diaphragm (carrier pressure adjusting mechanism)
- 46: carrier
- 49: fluid chamber
- 50, 68: retainer ring
- 51: first passage
- 52: groove
- 53: first pressure adjusting mechanism
- 54: tube (ring pressure adjusting mechanism)
- 58, 65: second passage
- 60: second pressure adjusting mechanism
- 64: second fluid chamber
- 66: second diaphragm (ring pressure adjusting mechanism)
- W: wafer

Cited reference: JP-A 64-045566

Brief Description of the Drawings

Fig. 1 is a schematic explanatory view of the main part of a machine of the present invention,

Fig. 2 is a sectional view of a pressure chamber, and

Figs. 3-5 are views showing an example that four high-accuracy flat-surface grinding machines are arranged, wherein Fig. 3 is a top view, Fig. 4 is a front view, and Fig. 5 is a side view.

Description of the Reference Numerals

- 2: high-accuracy flat-surface grinding machine
- 4: platen
- 6: grinding part
- 8: rotation shaft
- 10: pipe
- 12: abrasive
- 14: fixing table for article to be grinded
- 16: template
- 18: grinding-shaft end flange
- 20: grinding shaft
- 22: pressure chamber
- 24: side wall
- 28, 30: connection flange
- W: article to be grinded

Cited reference: JP-A 63-144954

Brief Description of the Drawings

Fig. 1 is a sectional view of the main part of an embodiment of the present invention,

Fig. 2 is a fragmentary enlarged sectional view thereof,

Fig. 3 is a bottom view thereof,

Figs. 4a and 4b are a plan view and fragmentary plan view showing the manner of determining a motion locus of a work during working,

Figs. 5a and 5b are a plan view and fragmentary plan view showing the manner of determining another motion locus of a work during working, and

Fig. 6 is a fragmentary sectional view of a conventional example.

Description of the Reference Numerals

- 10: platen

11: pressurizing head

12: work

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拒絶理由通知書

特許出願の番号 平成 8 年 特許願 第 1 4 7 5 9 7 号
起案日 平成 1 6 年 1 2 月 2 日
特許庁審査官 横溝 顕範 9 4 2 3 3 C 0 0
特許出願人代理人 長谷川 芳樹 (外 3 名) 様
適用条文 第 2 9 条の 2、第 3 6 条

この出願は、次の理由によって拒絶をすべきものである。これについて意見があれば、この通知書の発送の日から 3 か月以内に意見書を提出して下さい。

理 由

理由 1

この出願の下記の請求項に係る発明は、その出願の日前の特許（実用新案登録）出願であって、その出願後に出版公告（特許掲載公報の発行又は実用新案掲載公報の発行）又は出版公開がされた下記の特許（実用新案登録）出願の願書に最初に添付された明細書又は図面に記載された発明（考案）と同一であり、しかも、この出願の発明者がその出願前の特許（実用新案登録）出願に係る上記の発明（考案）をした者と同一ではなく、またこの出願の時に於いて、その出願人が上記特許（実用新案登録）出願の出願人と同一でもないもので、特許法第 2 9 条の 2 の規定により、特許を受けることができない。

記 （引用文献等については引用文献等一覧参照）

- ・請求項 1-4, 6-10
- ・引用文献等 A
- ・備考

出願 A には、ポリシングヘッド組立体において、ハウジング支持プレート、ウエハバックング部材、チャンバを含む負荷部材、別個に制御され圧力で進退自在かつチューブを備える保持リング組立体を有する点が記載されている。

ここで、出願 A においてはベローズではなくダイヤフラム、ウエハ真空吸着ではなく接着と記載されているが、ポリシングヘッド組立体において、チャンバ構成部材としてのベローズとダイヤフラム、ウエハ保持としての接着と真空吸着は周知技術（必要なら特開昭 6 4 - 0 4 5 5 6 6 号公報等参照）であり、ブラダとチューブは流体圧作動部としてきわめて一般的に用いられるものであり、ウエハ真空吸着部にリセスを設けること及びエッジシールを用いることもまた周知の技術

である（必要なら特開昭63-144954号公報）から、それぞれいずれを採用するかは必要に応じて適宜変更される設計的事項である。

理由2

この出願は、特許請求の範囲の記載が下記の点で、特許法第36条第6項第2号に規定する要件を満たしていない。

記

・請求項 8

・備考

「ポケット」なる記載がなされているが、その具体的構成が不明である。
（他に「ポケット」なる記載はなく、請求項8が引用する請求項7の記載等を参酌すると「リセス」の誤記ではないかと推察される。）

よって、請求項8に係る発明は明確でない。

引 用 文 献 等 一 覧

A. 特願平07-041076号（特開平08-229808号）

<留意事項>

（1）明細書を補正した場合は、補正により記載を変更した個所に下線を引くこと（特許法施行規則様式第13備考6）。

（2）補正は、この出願の出願当初の明細書又は図面に記載した事項のほか、出願当初の明細書又は図面に記載した事項から自明な事項の範囲内で行わなければならない。補正の際には、意見書で、各補正事項について補正が適法なものである理由を、根拠となる出願当初の明細書等の記載箇所を明確に示したうえで主張されたい。（意見書の記載形式は、無効審判における訂正請求書の記載形式を参考にされたい。）

（3）この拒絶理由通知書中で指摘した請求項以外の請求項に係る発明については、現時点では、拒絶の理由を発見しない。拒絶の理由が新たに発見された場合には拒絶の理由が通知される。

先行技術文献調査結果の記録

・調査した分野 I P C第7版 B24B37/00

B24B37/04

H01L21/304

この先行技術文献調査結果の記録は、拒絶理由を構成するものではない。

この拒絶理由通知の内容に関するお問い合わせ、または面接のご希望がございましたら下記までご連絡下さい。

特許審査第二部 生産機械

TEL. 03(3581)1101 内線3324